Abstract

Multiple circuits connected to a common terminal are switched where the frequency bands to be conducted through the circuits are close. Each circuit has an independent signal path to the common terminal which contains a filter and a device. Each device has a first and a second state. Each circuit has a first filter characteristic that passes a first frequency band and substantially blocks the second frequency band. Each circuit has a second filter characteristic which substantially blocks the first and second frequency bands when the device is in the second state, wherein the second filter characteristic is a result of the device and a filter acting in combination. As a result, the frequency multiplexer can have multiple frequency bands in a narrow frequency range connected to a common terminal with minimum signal loss.